



STATE OF MINNESOTA

Minnesota Pollution Control Agency

Industrial Division

National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MN0042536

PERMITTEE: CLIFFS ERIE, LLC
FACILITY NAME: Hoyt Lakes Mining Area
RECEIVING WATER: Second Creek, Wyman Creek, Spring Mine Creek, and unnamed tributaries to Partridge River/Colby Lake

CITY OR TOWNSHIP: Hoyt Lakes **COUNTY:** St. Louis
ISSUANCE DATE: May 4, 2001 **EXPIRATION DATE:** November 30, 2005
MODIFICATION DATE: May 6, 2011

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above and to discharge from this facility to the receiving water named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality in accordance with Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7050, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, as modified on the modification date identified above, and supersedes the permits that were previously modified on October 30, 2001, July 29, 2005, October 10, 2005, and November 30, 2007. This permit expires at midnight on the expiration date identified above.

Signature: _____
Jeff Udd, P.E. *for Minnesota Pollution Control Agency*
Acting Supervisor, Water Quality Permits Unit
Land and Water Quality Permits Section
Industrial Division

Submit DMRs to:

Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Submit Other WQ Reports to:

Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Questions on this permit?

- For DMR and other permit reporting issues, contact:
Jennifer Satnik, 651-296-8710.
- For specific permit requirements or permit compliance status, contact:
John Thomas, 218-723-4928.
- General permit or NPDES program questions, contact:
MPCA Customer Assistance Center
651-297-2274 or 800-646-6247.

520 Lafayette Rd. N.; St. Paul, MN 55155-4194; 651-296-6300 (voice); 651-282-5332 (TTY)

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Facility Description

The principal activity at this facility is the maintenance and closure of an open pit taconite mine not in current production. This permit authorizes maintenance and closure-related activities at the facility and does not authorize the mining, crushing, concentrating or processing of ferrous or nonferrous ores or material, or the disposal or storage of new mining waste.

In addition, this permit authorizes the construction and operation of taconite iron unit (i.e., taconite pellets, pellet chips, concentrate, etc.) storage and transfer facility in conjunction with the Permittee's railroad project. In this project, iron units from other taconite processing facilities (i.e., Hibbing Taconite, United Taconite) will be railed to the existing iron unit storage yard at the Hoyt Lakes facility for storage and staging prior to their transport to Permittee-owned dock facilities at Taconite Harbor via the existing Permittee-owned railroad. The railroad project will involve the construction of approximately two miles of new railroad to enhance the existing rail unloading/loading loop and spur at the facility. The taconite iron unit storage and transfer facility was the subject of the October 10, 2005 modification of this permit.

In addition, this permit was modified on November 30, 2007, to provide for the transfer of a portion of the originally permitted Hoyt Lakes Mining Area from Cliffs Erie LLC to Mesabi Mining LLC and Steel Dynamics, Inc. In general, the properties that were transferred consist of the following former mining areas: Area 1, Area 2WX, Area 6, Area 9 and Area 9S. The affected properties were transferred from Cliffs Erie to Mesabi Mining/SDI through the simultaneous issuance of NPDES/SDS Permit No. MN0069078.

The activity specifically the subject of this permit modification is the construction of facilities to eliminate the discharge of surface seepage from outfall SD026 in response to requirements of the March 25, 2010 (effective date April 6, 2010) Consent Decree between Cliffs Erie, LLC and the MPCA. The facilities authorized include the construction of berms to collect the surface seepage at the outfall and the installation of pumping and piping to route the collected seepage to Cell 1E of the tailings basin, thereby eliminating the discharge. This activity is intended to commence in the Spring of 2011 upon finalization of applicable MPCA and U.S. Army Corp of Engineers permits.

For the portion of the originally permitted facility area that remains under the authority of this permit, the facility description remains essentially unchanged from that in the original permit to retain continuity with the originally issued permit, and follows here. The facility description will be updated to reflect current and future changes to the facility when the permit is next reissued. In addition, the description of the portion of the facility that was transferred to Mesabi Mining/SDI is being included to maintain an overall historical perspective.

Facility Description of Remaining Cliffs Erie Properties:

The facility consists of the excavation areas, mining waste disposal sites, haul roads, railways, and railroad yards, materials and equipment storage areas, plant areas and wastewater disposal systems within the area designated on the accompanying maps, except for the domestic wastewater disposal systems. Facility sewage treatment consists of routing the domestic wastewater to the Hoyt Lakes taconite facility sewage treatment plant according to NPDES/SDS permit MN0054089, disposal through domestic wastewater septic tank-drainfield systems as authorized by St. Louis County, or containment in portable units followed by transportation away from the facility for disposal.

Surface drainage from the stockpiles, haul roads, building areas and storage sites at the facility flows to: the mine pits; Wyman Creek and unnamed creeks tributary to Colby Lake and the Partridge River; Second Creek (also known as Knox Creek); Spring Mine Creek to the Embarrass River; and unnamed

wetlands tributary to these creeks. These receiving waters are class 2B, 3C, 4A, 4B, 5 and 6 waters, except for Wyman Creek (class 1B, 2A, 3B, 3C, 4A, 4B, 5 and 6), Colby Lake (class 1B, 2Bd, 3B, 3C, 4A, 4B, 5 and 6), and the wetlands, which are class 2D, 3D, 4C, 5 and 6 waters.

Mining Area 2W: Pipe outfalls **SD008** and **SD009** (formerly 070 and 080) are pumped dewatering discharges from Pit 2W through pipes and then overland flow to Second Creek, at average flow of 5.0 MGD each and maximum flows of 7.2 MGD (for outfall SD008) and 14.4 MGD (for outfall SD009). Pipe outfall **SD013** (formerly outfall 120) is a pumped dewatering discharge from Pit 2W through a pipe, at average and maximum rates of 7.2 and 14.4 MGD, to a ditch and then overland to an unnamed creek and wetlands, which enter Colby Lake in the SW $\frac{1}{4}$, SW $\frac{1}{4}$, Section 5, T58N, R14W.

Mining Areas 2, 2E and 3: Culvert outfall **SD012** (formerly outfall 110) is a gravity outflow, at average and maximum rates of 5.0 and 7.2 MGD, from the east end of Pit 3 toward Wyman Creek. Pipe outfalls **SD010** and **SD011** (formerly 090 and 100) are pumped dewatering discharges, each at average and maximum flows of 5.0 and 7.2 MGD, from Pits 2, 2E and 3 through pipes and ditches and then unnamed wetlands to Wyman Creek. Drainage from the sandblasting site and related buildings, east of the Area 2 Shops, is directed toward Pit 3.

Mining Area 5S: Channel outfall **SD030** is a gravity outflow from the south end of pit area 5S, forming the headwaters of Wyman Creek; this discharge presently is not authorized under this permit. Wyman Creek enters Colby Lake in the S $\frac{1}{2}$, Section 4, T58N, R14W.

Mining Area 5N: Gravity drainage from the north end of Mining Area 5N culvert outfall **SD033**, flowing at approximately 0.25 MGD, forms the headwaters of Spring Mine Creek, which enters the Embarrass River.

Area 1 Shops and Railroad Panel Yard Area: The Panel Yard includes a roofed locomotive fueling station, where all the wastewaters generated are collected and removed for proper disposal away from the facility through an outside vendor. The Area 1 Shops include an off-road equipment repair shop (with self-contained, indoor steam-cleaning and washing operations for mobile equipment), equipment parking, an Electrical Shop, a Tire Shop, a decommissioned Heating Plant, and various indoor and outdoor dry storage sites. High-pressure steam cleaners and soaps are used to clean equipment in the steam room. The floor drain wastewater from the steam-cleaning room and truck shop areas is treated and reused within the cleaning system, and is not discharged; this wastewater generated is periodically collected and removed for proper disposal away from the facility through an outside vendor. Floor drains from the Electrical Shop and Tire Repair Shop are sealed; no non-domestic wastewater is generated by these shops. Roof and yard runoff from the Area 1 Shops runs southward, across the railroad tracks, merges with runoff from the Panel Yard Area, and then flows east and then south through a culvert under the North Gate Road in the SW $\frac{1}{4}$, SW $\frac{1}{4}$, Section 17, T59N, R14W, to unnamed wetlands tributary to Second Creek.

Plant Area: Some yard runoff from the Concentrator and Pellet Plant area, including the sewage treatment plant, Additive Plant, Heating Plant and former outdoor coal storage area, drains south to unnamed wetlands to Second Creek.

Hematite Wastewater Recovery System: The Hematite Wastewater Recovery System includes the Redwater Basin, which collects: Rebuild Shop steam-cleaning room and floor drains; Hematite Wash Plant wastewaters; air emission control wastewaters from the pellet and hematite ore stockpiles, and from the Pellet Plant and its transfer points, including the rail cars; floor drain and wash wastewaters from the Pellet Plant; emergency overflow drains from the Pellet Plant; and the stormwater runoff from most of the

main plant area, including the pellet and hematite ore stockpiles, Aboveground Storage Tank Farm (covered under permit AST#5297), Pellet Plant, Hematite Reclaim Operation, locomotives parking area and General Shops, Fine Crushing Plant, Ore Transfer House, Rebuild Shop and Cold Storage, Rubber Shop, Concentrator, Plant Reservoir and Plant Substation. The Rebuild Shop steam-cleaning room and floor drain wastewater is collected and treated by an oil/water separator before being routed to the Hematite Wastewater Recovery System. During operation of the taconite processing facility, wastewater from the Hematite Wastewater Recovery System was pumped at a maximum rate of 4.3 MGD back to the pellet stockpile area for reuse, and into the tailings basin. With the 2005 railroad project, management of this system is being modified as described in the paragraph below. Accumulated sediments in the Redwater Basin, and in the North and South Hematite Basins, which are upstream of the Redwater Basin, are periodically removed from sedimentation basins and returned to the Pellet Plant for additional iron recovery or disposed of in an approved manner. The Redwater Basin has four manually operated bypass overflow pipes; the wastewater level in the basin is monitored automatically on a continuous basis to prevent overflows.

The iron unit storage and stockpile area portion of the Hematite Wastewater Recovery System is intended to be reactivated as part of the 2005 Cliffs Erie railroad project, with iron unit storage and transfer activities resuming at the site. Wastewater consisting of stormwater runoff from the iron unit stockpile area will be routed to the Redwater Basin for settling prior to its reuse for dust control at the iron unit storage facility. Given the scale of the proposed resumed operations, the projected stormwater flows, anticipated dust control needs and the capacity of the Redwater Basin, the Basin will be able to accommodate a 25 year, 72 hour storm event. No discharge to the tailings basin or to surface waters from the Redwater Basin will occur.

Second Creek Headwaters Area: Culvert outfall **SD026** (formerly 251) routes flow, at maximum and average rate of 0.9 and 0.4 MGD, from the N½, Section 16, T59N, R14W, seepage discharge area, the Green Water Ponds, the Area 2 Shops Area and the Knox Rail Refueling Area. The seepage discharge may originate in part from Area 1E of the Hoyt Lakes tailings basin. Flow from the Area 2 shops toward outfall SD026 includes roof and yard runoff from the Locomotive Shop (Building 203), Carpentry/Service Shop, Truck Storage, locomotive fueling and a fuel storage site, and various indoor and outdoor dry storage sites and buildings. The Area 2 Shops include a roofed locomotive fueling station, where all the wastewaters generated are collected and removed for proper disposal away from the facility through an outside vendor. Chemical cleaners are used to clean equipment and floors in the Locomotive Shop only. The floor wash and other drainage from the Locomotive Shop is treated and reused within the cleaning system; the wastewater is periodically collected and removed from this reuse system for proper disposal away from the facility through an outside vendor. Floor drains from other than the Locomotive Shop are sealed; no non-domestic wastewater is generated by these buildings.

The Knox Locomotive Refueling Area also includes a roofed locomotive fueling station, where all the wastewaters generated are collected and treated in a three-tank-series underground system; the wastewater from these tanks is removed weekly from the facility for proper disposal through an outside vendor; emergency overflows may occur from the last of these three tanks through overflow pipe station **WS001** (formerly 801). Some groundwater and stormwater from the ditch just south of the Knox Refueling Area flows east to join the Area 2 Shops flow immediately upstream of culvert outfall SD026. Ground water quality monitoring well systems have been installed in the past at both the Area 2 Shops and the Knox Refueling Area to monitor contamination from fuel and cleaning fluid leak and spill incidents.

Some surface runoff from sites on the south and east of the Area 2 Shops, including the salt stockpile site, as well as wastewater from a final rail car pellet water spray station, drains toward a basin located in the NE¼, SE¼, Section 16, T59N, R14W; this wastewater is recycled for use at the spray station, and does not discharge to the Second Creek drainage nor to the mine pits.

Tailings generated by the Hoyt Lakes taconite processing plant have been used throughout the facility for construction backfill, road construction and maintenance, and blast stemming material. Ligninsulfonates and Coherex may be used as chemical dust suppressants at the facility (as monitored by stations **WS002** and **WS003**, respectively), at a combined maximum rate of 100,000 gallons/year. Magnesium chloride, calcium chloride and a calcium chloride-sodium chloride mixture are applied on roads at the facility, at a maximum combined rate of 1100 tons/year. Roofed truck refueling sites are located at Areas 2, 2WX and 6. The oils are periodically removed from the oil/water separators and fuel spill recovery sumps at the facility and reclaimed for reuse. The sediment and sludge solid wastes generated by the various machinery, equipment, and vehicle cleaning activities at the facility, including those at the Area 1 and Area 2 Shops, are disposed of through service vendors, according to MPCA solid and hazardous waste rules. No freeze conditioning agents are used at the facility. Coal and petroleum coke are not stored nor used at the facility.

Monitoring station **SW006** (formerly 700) is the untreated municipal water supply for the city of Hoyt Lakes. Monitoring station **SW002** (formerly 702) is located in Wyman Creek at the Duluth, Missabe and Iron Range (DM&IR) Railroad Bridge that is just east of County Road 666 east of Hoyt Lakes (SE¼, Sec. 4, T58N, R14W); station **SW007** is located in the east branch of Wyman Creek at the Forest Road 117 crossing.

The facility is located primarily in sections 1, 2, 11-16 and 21-28 of T59N, R14W, St. Louis County, Minnesota. The location of the facility and the designated outfalls is shown on the accompanying maps. The facility is located in the Lake Superior Basin.

Facility Description of Transferred Property:

Mining Area 1: Pipe outfall SD003 (formerly outfall 010) was a pumped or gravity dewatering discharge from the east end of Pit 1 to unnamed wetlands to Second Creek, at average and maximum rates of 5.0 and 14.4 MGD. This outfall has been transferred to NPDES Permit No. MN0067687 issued to Mesabi Nugget, LLC and is no longer included under the authorization of this permit. Pipe outfall SD004 (formerly 020) is a pumped dewatering discharge (average and maximum rates of 5.4 and 11.8 MGD) from the west end of Pit 1 to an unnamed ditch, thence to an unnamed creek that enters Wynne Lake. A closed industrial landfill is located in the NW¼, Section 18, T59N, R14W, and also drains toward Pit 1.

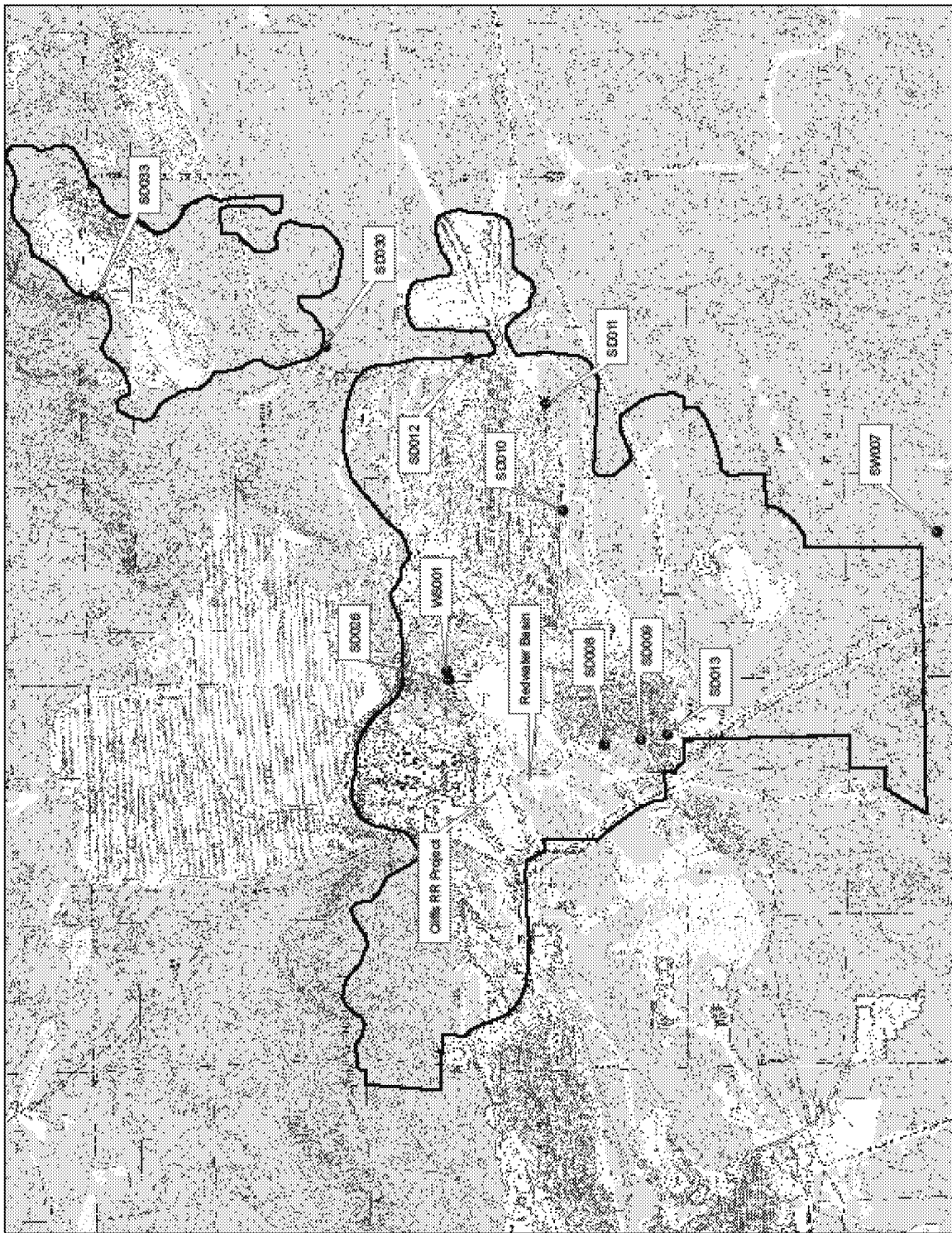
Mining Area 2WX: Four pumped dewatering discharges (outfalls SD014, SD015, SD016 and SD017; formerly outfalls 130, 140, 150, 160) are directed from Pit 2WX through pipes, ditches and then unnamed wetlands to Second Creek, each at average and maximum flows of 5.0 and 7.2 MGD. Four additional pumped dewatering pipe discharges (outfalls SD018, SD019, SD020 and SD021; formerly outfalls 170, 180, 190, 200) are directed from Pit 2WX to the south, each at average and maximum flows of 5.0 and 7.2 MGD. The discharge from outfall SD018 flows overland to the same unnamed waters that receive flow from outfall SD013. The discharge outfalls SD019, SD020 and SD021 flow overland to another unnamed creek which enters Colby Lake in the N½, NE¼, Section 6, T58N, R14W.

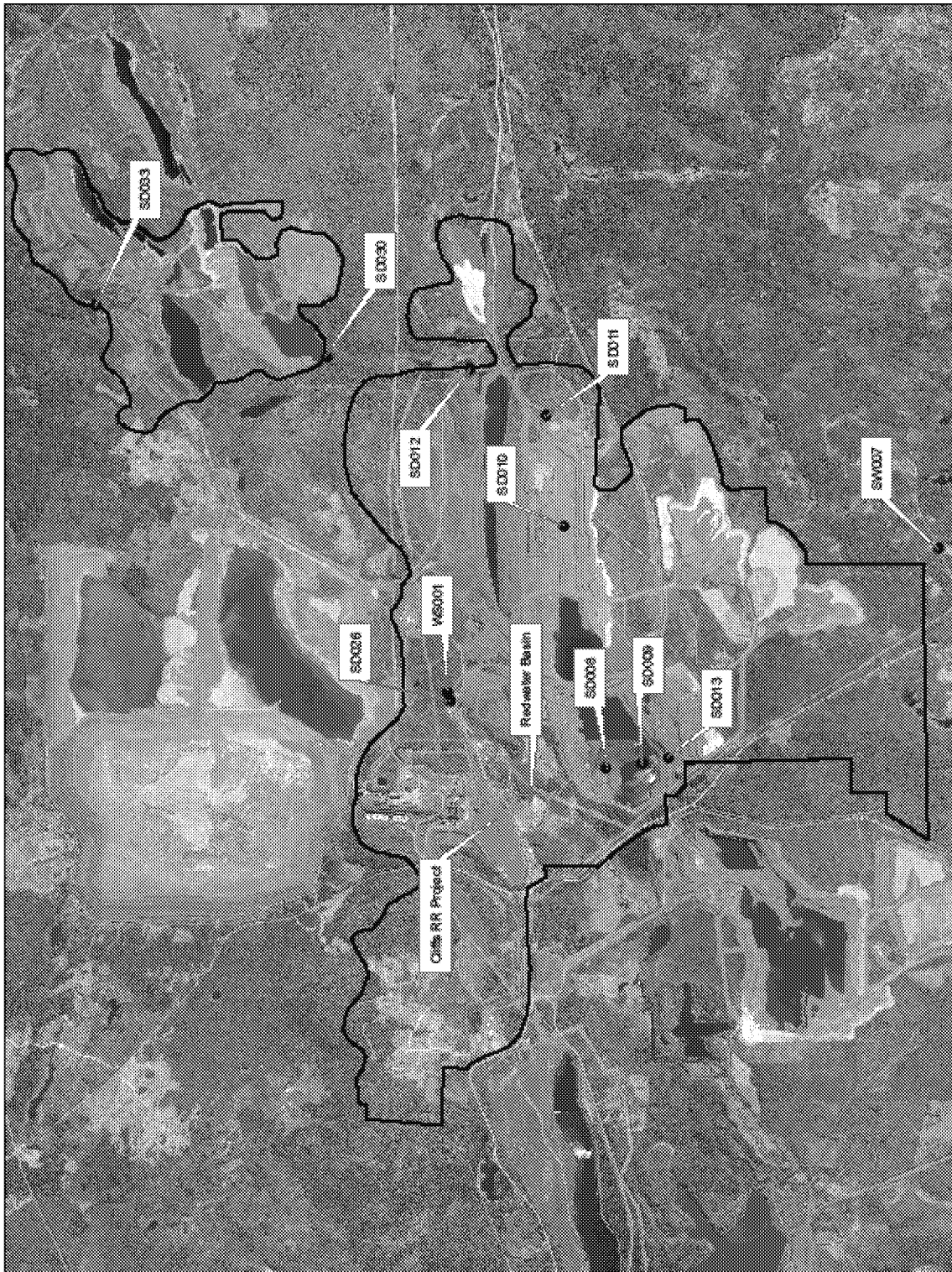
Mining Area 6: Pipe outfall SD006 (formerly 050) is a pumped dewatering discharge from Pit 6 to overland flow to Second Creek, at average and maximum rates of 10.0 and 14.4 MGD. Pit 6 is known to contain 156 tons of unexploded emulsified explosives. Pipe outfall SD024 (formerly 230) is a pumped dewatering discharge from Pit 6 to First Creek, at a maximum rate of 7.2 MGD.

Mining Area 9: Pipe outfall SD005 (formerly 030) is a pumped dewatering discharge from Pit 9 through overland flow to First Creek, at average and maximum rates of 5.0 and 7.2 MGD. Pipe outfall SD022 (formerly outfall 210) is a pumped dewatering discharge (average and maximum rates of 5.0 and 7.2 MGD) from Pit 9 to the same unnamed creek that receives flow from outfall SD004.

Mining Area 9S: Pipe outfalls SD007 and SD023 (formerly 060 and 220) are pumped dewatering discharges from Pit 9S to overland flow to First Creek, at average and maximum rates of 10.8 and 14.4 MGD.

Sum-outfall SD001 is a flow-weighted composite of outfalls SD018, SD019, SD020 and SD021. Surface water monitoring station SW003 is located in the unnamed creek in the SW $\frac{1}{4}$, SW $\frac{1}{4}$, Section 5, T58N, R14W and station SW004 is located in the unnamed creek in the N $\frac{1}{2}$, NE $\frac{1}{4}$, Section 6, T58N, R14W.





Cliffs Erie - Hoyt Lakes Mining Area

Summary of Stations

Surface Discharge Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
SD008	Effluent To Surface Water	Pit 2W dewatering pipe outfall 070	SE Quarter of the SW Quarter of the NW Quarter of Section 21, Township 59 North, Range 14 West
SD009	Effluent To Surface Water	Pit 2W dewatering pipe outfall 080	SW Quarter of the NE Quarter of the SW Quarter of Section 21, Township 59 North, Range 14 West
SD010	Effluent To Surface Water	Pits 2/2E/3 dewatering pipe outfall 090	SW Quarter of the NW Quarter of the NE Quarter of Section 22, Township 59 North, Range 14 West
SD011	Effluent To Surface Water	Pits 2/2E/3 dewatering pipe outfall 100	NW Quarter of the NW Quarter of the NE Quarter of Section 23, Township 59 North, Range 14 West
SD012	Effluent To Surface Water	Pit 3 overflow channel outfall 110	NE Quarter of the NW Quarter of the SE Quarter of Section 4, Township 59 North, Range 14 West
SD013	Effluent To Surface Water	Pit 2W dewatering pipe outfall 120	SW Quarter of the SE Quarter of the SW Quarter of Section 21, Township 59 North, Range 14 West
SD026	Effluent To Surface Water	2nd Creek headwaters culvert outfall 251	SW Quarter of the SW Quarter of the NE Quarter of Section 16, Township 59 North, Range 14 West
SD030	Effluent To Surface Water	Pit 5S overflow channel [unauthorized]	SE Quarter of Section 11, Township 59 North, Range 14 West
SD033	Effluent To Surface Water	Rail Culvert NE of Pit 5N Loadout Pocket	SE Quarter of the NW Quarter of the NW Quarter of Section 1, Township 59 North, Range 14 West

Surface Water Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
SW002	Stream/River/Ditch, Downstream	Wyman Ck, DMIRR grade at CR 666, stn 702	SE Quarter of the SE Quarter of the SE Quarter of Section 4, Township 58 North, Range 14 West
SW006	Lake/Reservoir	Untreated HL city water supply, stn 700	NW Quarter of the SW Quarter of the NE Quarter of Section 8, Township 58 North, Range 14 West
SW007	Stream/River/Ditch, Downstream	E Branch Wyman Creek at FR 117	NW Quarter of the NW Quarter of the SE Quarter of Section 34, Township 59 North, Range 14 West

Waste Stream Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
WS001	Internal Waste Stream	Knox Refueling Area pipe station 801	NE Quarter of the SW Quarter of the NE Quarter of Section 16, Township 59 North, Range 14 West
WS002	Intermediate: WW to Land	Ligninsulfonate as applied	
WS003	Internal Waste Stream	Coherex as applied	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 008, SD 009

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement	1 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement	1 x Month	
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Jan-Dec	Grab	1 x Month	5
pH	8.5	SU	Instantaneous Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
pH	6.5	SU	Instantaneous Minimum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	

SD 010, SD 011, SD 012

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Arsenic, Total (as As)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Cobalt, Total (as Co)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Fibers, Ambiguous	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Amphibole	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Non-Amphibole Non Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Total	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 010, SD 011, SD 012

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Jan-Dec	Grab	1 x Month	5
pH	8.5	SU	Instantaneous Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
pH	6.5	SU	Instantaneous Minimum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Temperature Difference Between Sample & Reference Point in F	0	Deg F	Instantaneous Maximum	Mar, Jun, Sep, Dec	Calculation	1 x Month	2
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Mar, Jun, Sep, Dec	Measurement, Instantaneous	1 x Month	4

SD 013

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Arsenic, Total (as As)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Cobalt, Total (as Co)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Jan-Dec	Grab	1 x Month	5
pH	8.5	SU	Instantaneous Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 013

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
pH	6.5	SU	Instantaneous Minimum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Mar, Jun, Sep, Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Maximum	Mar, Jun, Sep, Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	

SD 026

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
1,2-Dichloroethylene (cis-)	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Benzene	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Boron, Total (as B)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Calcium, Total (as Ca)	Monitor Only	mg/L	Single Value	Sep	Grab	1 x Month	
Cations, Total	Monitor Only	meq/L	Single Value	Sep	Calculation	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloroform	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Cobalt, Total (as Co)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Ethylbenzene	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Instantaneous	1 x Month	
Fluoride, Total (as F)	Monitor Only	mg/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Magnesium, Total (as Mg)	Monitor Only	mg/L	Single Value	Sep	Grab	1 x Month	
Manganese, Total (as Mn)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Apr, Jun, Aug, Oct	Grab	1 x Month	5
Molybdenum, Total (as Mo)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	
Organics, Diesel Range as diesel, Total	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Month	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 026

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
pH	8.5	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Month	
pH	6.5	SU	Instantaneous Minimum	Jan-Dec	Grab	1 x Month	
Potassium, Total (as K)	Monitor Only	mg/L	Single Value	Sep	Grab	1 x Month	
Sodium, % Total Cations in meq/L	Monitor Only	%	Single Value	Sep	Calculation	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Single Value	Sep	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	60	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	1000	umh/cm	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Tetrachloroethylene (Perchloroethylene)	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Toluene	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Trichloroethylene (TCE or Trichloroethene)	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	
Xylenes, Total	Monitor Only	ug/L	Single Value	Sep	Grab	1 x Month	

SD 030

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Arsenic, Total (as As)	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Month	
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Cobalt, Total (as Co)	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Month	
Fibers, Ambiguous	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Amphibole	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Non-Amphibole Non Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Fibers, Total	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 030

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Flow	0	MG	Calendar Month Total	Jan-Dec	Measurement, Instantaneous	1 x Month	10
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Jan-Dec	Grab	1 x Month	5
pH	Monitor Only	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Month	
pH	Monitor Only	SU	Instantaneous Minimum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Single Value	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Temperature Difference Between Sample & Reference Point in F	Monitor Only	Deg F	Instantaneous Maximum	Mar-Nov	Calculation	1 x Month	1
Temperature, Water (C)	Monitor Only	Deg C	Instantaneous Maximum	Mar-Nov	Measurement, Instantaneous	1 x Month	4
Turbidity	Monitor Only	NTU	Single Value	Jan-Dec	Grab	1 x Month	

SD 033

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Maximum	Feb, Apr, Jun, Aug, Oct, Dec	Measurement, Instantaneous	1 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Feb, Apr, Jun, Aug, Oct, Dec	Measurement, Instantaneous	1 x Month	
Hardness, Carbonate (as CaCo3)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Mercury, Total (as Hg)	Monitor Only	ng/L	Single Value	Jan-Dec	Grab	1 x Month	5
pH	8.5	SU	Instantaneous Maximum	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
pH	6.5	SU	Instantaneous Minimum	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Silver, Total (as Ag)	Monitor Only	ug/L	Single Value	Mar, Jun, Sep, Dec	Grab	1 x Month	6
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SD 033

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Maximum	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Month	
Turbidity	25	NTU	Calendar Month Average	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	
Turbidity	Monitor Only	NTU	Calendar Month Maximum	Feb, Apr, Jun, Aug, Oct, Dec	Grab	1 x Month	

SW 002

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Fibers, Ambiguous	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	9
Fibers, Amphibole	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	9
Fibers, Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	9
Fibers, Non-Amphibole Non Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	9
Fibers, Total	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	9
Flow, Stream, Instantaneous	Monitor Only	cfs	Single Value	Apr, Dec	Measurement, Instantaneous	1 x Month	9
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Single Value	Apr, Dec	Grab	1 x Month	9
Turbidity	Monitor Only	NTU	Single Value	Apr, Dec	Grab	1 x Month	9

SW 006

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Fibers, Ambiguous	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	8
Fibers, Amphibole	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	8
Fibers, Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	8
Fibers, Non-Amphibole Non Chrysotile	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	8
Fibers, Total	Monitor Only	MF/L	Single Value	Apr, Dec	Grab	1 x Month	8
Flow	Monitor Only	mgd	Single Value	Apr, Dec	Measurement, Instantaneous	1 x Month	8
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Single Value	Apr, Dec	Grab	1 x Month	8
Turbidity	Monitor Only	NTU	Single Value	Apr, Dec	Grab	1 x Month	8

Cliffs Erie - Hoyt Lakes Mining Area

Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SW 007

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Flow, Stream, Instantaneous	Monitor Only	cfs	Calendar Month Average	Jan-Dec	Measurement, Instantaneous	1 x Month	4
Flow, Stream, Instantaneous	Monitor Only	cfs	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	4
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Average	Jan-Dec	Measurement, Instantaneous	1 x Month	4
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	4

WS 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Month	
Organics, Diesel Range as diesel, Total	Monitor Only	ug/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Water Level At Sample Collection Time	Monitor Only	feet	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	7

WS 002

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
2,3,7,8,-Tetrachlorodibenzofuran	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Bicarbonates	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Calcium, Total (as Ca)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
COD (Chemical Oxygen Demand)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Flow	0.1	MG	Calendar Year Maximum	Jan-Dec	Measurement, Continuous	1 x Year	3
Magnesium, Total (as Mg)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Mercury, Total (as Hg)	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
pH, Field	Monitor Only	SU	Single Value	Jan-Dec	Grab	1 x Year	
Phenols, Total	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	

Cliffs Erie - Hoyt Lakes Mining Area Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

WS 002

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Phosphorus, Total (as P)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Sodium, Total (as Na)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jan-Dec	Grab	1 x Year	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Zinc, Total (as Zn)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	

WS 003

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Chloride, Total	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
COD (Chemical Oxygen Demand)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Flow	0.1	MG	Calendar Year Maximum	Jan-Dec	Measurement, Continuous	1 x Year	3
Mercury, Total (as Hg)	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Methylene Blue Active Substances (Surfactants)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Naphthalene	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Organics, Diesel Range as diesel, Total	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Phosphorus, Total (as P)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Pyrene	Monitor Only	ug/L	Single Value	Jan-Dec	Grab	1 x Year	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jan-Dec	Grab	1 x Year	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Single Value	Jan-Dec	Grab	1 x Year	

Cliffs Erie - Hoyt Lakes Mining Area
Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

Notes:

- 1 -- As the difference from the temperature recorded simultaneously at station SW007, between the hours of 1 and 5 P.M.
- 2 -- As the difference from, and not materially greater than, the temperature recorded simultaneously at station SW007, between the hours of 1 and 5 P.M.
- 3 -- Limited as sum of ligninsulfonate plus Coherex application.
- 4 -- Measure between the hours of 1 and 5 P.M.
- 5 -- Mercury monitoring may be omitted during calendar year 2001.
- 6 -- Minimum detection limit of 0.1 ug/L.
- 7 -- Report as fluid depth in third of the three tanks, even when no flow occurs from the tank overflow pipe.
- 8 -- Sample one day after the SD001 or SW002 sampling, whichever of those occurs first.
- 9 -- Sample one day after the SD010-SD012 and SD030 fibers sampling when flow occurs from at least one of these four outfalls. If no flow occurs from outfalls SD010-SD012 or SD030 during the monitoring period, sample SW002 at any time during the period.
- 10 -- See compliance schedule requirements of this permit.

Chapter 1. Industrial Process Wastewater

1. Authorization

- 1.1 This permit authorizes closure-related activities at the facility. This permit does not authorize the mining, crushing, concentrating or processing of ferrous or nonferrous metallic ores or material at the facility, or the storage or disposal of new mining waste.
- 1.2 The facility is currently in the state of closure. If any of the following activities are proposed at the facility, this permit shall be reopened and modified or reissued to cover the wastewater management associated with these activities:
 - a. Mine pumping, stripping, drilling or blasting.
 - b. Contouring, channelization or sloping of mining waste storage or disposal areas, other than what is identified in this permit.
 - c. Rock crushing or mineral concentration.
 - d. Reactivation of all or part of the facility.

The Permittee shall notify the MPCA in writing at least 180 days before beginning any of the activities listed above. The Permittee shall obtain the modification or reissuance of this permit before beginning any of the activities listed above.

- 1.3 This permit does not authorize the storage or disposal of wastewater or wastes generated at facilities other than those covered under this permit or permit MN0054089. In particular, this permit does not authorize the storage or disposal of wastewater or wastes generated at the Dunka Mining Area or the Taconite Harbor Facility.
- 1.4 If at any time during the life of this permit the MPCA has reason to believe that financial conditions jeopardize the named permittee's ability to carry out its responsibility under this permit, the MPCA reserves the right to modify the permit to include the named permittee's parent corporation or any other party that could be responsible under state law. Any additional named permittees reserve the right to challenge the MPCA's determination by requesting a contested case hearing.
- 1.5 Based on fibers data from the facility and other relevant information, the MPCA may require the mitigation of fiber levels in discharges from the facility. If appropriate, the MPCA may require that the mitigation of fiber impacts be included in a Pollution Control Closure Plan for the facility.
- 1.6 The Permittee is required to comply with the applicable laws and rules, specifically including Minn. R. 7050, 7052, 7060 and other duly adopted rules and standards that now or in the future may be applied to the facility.

2. Prohibited Discharges

- 2.1 This permit does not authorize the discharge of sewage, wash water, scrubber water, spills, oil, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands or other surface waters of the state.

Chapter 1. Industrial Process Wastewater

3. Toxic Substance Reporting

- 3.1 The Permittee shall notify the MPCA immediately of any knowledge or reason to believe that an activity has occurred that would result in the discharge of a toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10 or listed below that is not limited in the permit, if the discharge of this toxic pollutant has exceeded or is expected to exceed the following levels:
- a. for acrolein and acrylonitrile, 200 ug/L;
 - b. for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol, 500 ug/L;
 - c. for antimony, 1mg/L;
 - d. for any other toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10, 100 ug/L; or
 - e. five times the maximum concentration value identified and reported for that pollutant in the permit application. (Minnesota Rules, pt. 7001.1090, subp. 2.A)
- 3.2 The Permittee shall notify the MPCA immediately if the Permittee has begun or expects to begin to use or manufacture as an intermediate or final by-product a toxic pollutant that was not reported in the permit application under Minnesota Rules, pt. 7001.1050, subp. 2.J. (Minnesota Rules, pt. 7001.1090, subp. 2.B)

4. Polychlorinated Biphenyls (PCBs)

- 4.1 PCBs, including but not limited to those used in electrical transformers and capacitors, shall not be discharged or released to the environment.

5. New Proposed Dewatering

- 5.1 The Permittee shall obtain the major modification or reissuance of this permit in order to begin discharge from a new outfall, including new pit dewatering locations, and fuel-spill contaminated ground water pumpout direct discharges. The complete application for a new discharge shall be submitted at least 180 days before the planned starting date of the new discharge.
- 5.2 In addition to the requirements in the Permit Modifications section of this permit, the Permittee shall submit to the MPCA detailed plans and specifications for the proposed methods of achieving discharge limits for turbidity and total suspended solids, based in part upon representative water quality data for untreated wastewater and a detailed map and diagram description of the proposed design for the flow control structures, and route of the discharge to receiving waters.

Chapter 1. Industrial Process Wastewater

6. Special Requirements

Mobile and Rail Equipment Service Areas

- 6.1 Mobile equipment and rail equipment service areas in the facility (including the General, Rebuild, Area 1 and Area 2 Shops) shall be operated in compliance with the following:
- a. The Permittee shall collect and dispose of degreasing wastes, motor oil, oil filters, oil sorbent pads and booms, transmission fluids, power steering fluids, brake fluids, coolant/antifreeze, radiator flush wastewater and spent solvents according to applicable solid and hazardous waste management rules and statutes. These materials, including the non-aqueous portion from flammable traps and oil/water separators, shall not be discharged to surface or ground waters of the state.
 - b. The steam-cleaning of mobile equipment and rail equipment, except for limited in-pit cleaning of large drills and shovels, shall be conducted in wash bays that drain to wastewater treatment systems that include the removal of suspended solids and flammable liquids. The only washing of mobile equipment done in outside areas shall be the non-chemical removal of mud and dirt that has accumulated during outside work.
 - c. The Permittee shall not use solvent-based cleaners, such as brake cleaners and degreasers, to wash mobile and rail equipment unless the cleaning fluids are completely contained and not allowed to flow to surface or ground waters of the state.

Chapter 2. Surface Discharge Stations

1. Sampling Location

- 1.1 Samples for an individual outfall shall be taken at that respective outfall.

2. Surface Discharges

- 2.1 Floating solids or visible foam shall not be discharged in other than trace amounts.
- 2.2 Oil or other substances shall not be discharged in amounts that create a visible color film.
- 2.3 The Permittee shall install and maintain outlet protection measures at the discharge stations to prevent erosion.

3. Winter Sampling Conditions

- 3.1 The Permittee shall sample flows at the designated monitoring stations including when this requires removing ice to sample the water. If the station is completely frozen throughout a designated sampling month, or frozen in such a manner that a representative sample cannot be obtained, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR.

If a designated monitoring station is unsafe to monitor due to ice conditions, the Permittee shall document in detail these conditions, and the Permittee shall return to collect the required sample on at least a monthly basis until a sample is collected. Unsafe conditions may justify postponing, but not canceling, monitoring required by this permit.

4. Discharge Monitoring Reports

- 4.1 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

Chapter 2. Surface Discharge Stations

5. Requirements for Specific Stations

- 5.1 SD 008, SD 009, SD 010, SD 011, SD 012, SD 013, SD 026, SD 030, SD 033: Submit a monthly DMR monthly by 21 days after the end of each calendar month following issuance of major permit modification.

6. Special Requirements

- 6.1 The Permittee shall sample the discharge from each of the mine pit dewatering outfalls for bicarbonates, total chloride, hardness (calcium and magnesium, calculated as CaCO_3), total dissolved solids, specific conductance, total sulfate and total mercury once per month as specified in the Limits and Monitoring Requirements section of this permit.
- 6.2 If there is no discharge from any of the outfalls from a given mine pit for the entire calendar month, the Permittee shall sample the mine pit water itself for the same list of parameters as required for the outfalls. For this discharge condition, a single sample of the mine pit water in a calendar month is sufficient regardless of the number of nondischarging outfalls from the given mine pit.

In this case the Permittee shall check the "No Discharge" box on the monthly Discharge Monitoring Report (DMR) for each of the outfalls originating from that mine pit and shall make a notation in the "comments" section of each DMR that a sample of the mine pit water was collected and analyzed. In addition, the Permittee shall provide the results of the mine pit water sampling as an attachment to the DMR.

- 6.3 The Permittee shall include with the application for permit reissuance required by Chapter 7.1.68 of this permit a Water Quality Monitoring Evaluation Report. The Water Quality Monitoring Evaluation Report shall include a summary of the water quality monitoring results collected for each outfall pursuant to Chapter 2.5.1 through 2.5.2 above as well as a detailed written evaluation as to the significance of the results in relation to applicable water quality standards for the listed parameters.

Chapter 3. Surface Water Stations

1. Sampling Location

- 1.1 The Permittee shall record the location, date, time and results for each SW002, SW006 and SW007 sample on the supplemental Discharge Monitoring Report form.

2. Winter Sampling Conditions

- 2.1 The Permittee shall sample flows at the designated monitoring stations including when this requires removing ice to sample the water. If the station is completely frozen throughout a designated sampling month, or frozen in such a manner that a representative sample cannot be obtained, the Permittee shall check the "No Flow" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR.

If a designated monitoring station is unsafe to monitor due to ice conditions, the Permittee shall document in detail these conditions, and the Permittee shall return to collect the required sample on at least a monthly basis until a sample is collected. Unsafe conditions may justify postponing, but not canceling, monitoring required by this permit.

3. Requirements for Specific Stations

- 3.1 SW 002, SW 006, SW 007: Submit a monthly DMR monthly by 21 days after the end of each calendar month following issuance of major permit modification.

Chapter 4. Waste Stream Stations

1. Requirements for Specific Stations

- 1.1 WS 001, WS 002, WS 003: Submit a monthly DMR monthly by 21 days after the end of each calendar month following issuance of major permit modification.

Chapter 5. Stormwater Management

1. Authorization

- 1.1 The Permittee shall notify the MPCA in writing at least 180 days before an expansion of the area covered by excavations or mining waste or other stockpiles beyond the facility area designated on the maps in the Permitted Facilities Description section of this permit, unless this expansion is authorized by permit MN0054089.

2. Water Quality Standards

- 2.1 The Permittee shall operate and maintain the facility and shall control runoff, including stormwater, from the facility to prevent the water quality standards specified in Minn. R. chs. 7050 and 7060 from being exceeded in waters of the state, including but not limited to, those waters listed on page 1 of this permit.

3. Stormwater Pollution Prevention Plan

- 3.1 The Permittee shall, by 90 days after permit modification, revise the Stormwater Pollution Prevention Plan that was developed for the facility to reflect the changes to the facility that have occurred since the permit was originally issued.

The revised Stormwater Pollution Prevention Plan shall address Best Management Practices for stormwater from mining waste storage and disposal areas at the facility.

The revised Stormwater Pollution Prevention Plan shall address Best Management Practices for the following materials at the facility so that surface and ground water quality standards are not exceeded: detergents and cleaning agents, solvents, chemical dust suppressants, lubricants, fuels, drilling fluids, oils, fertilizers, explosives and blasting agents.

The Permittee shall comply with the revised Stormwater Pollution Prevention Plan. The Permittee shall maintain a copy of this Plan at the facility.

4. Inspection and Maintenance

- 4.1 The Permittee shall inspect the facility on a regular basis to ensure that the Best Management Practices are being maintained.

5. Application of Chemical Dust Suppressants

- 5.1 The Permittee shall maintain records of the different chemical dust suppressant applications at the facility as needed to verify compliance with the requirements of this permit.
- 5.2 If a material applied is mixed with water or another solvent before application, chemical analysis required by this permit shall be done on the aqueous or other mixture that is representative of the solution applied. This analysis shall be conducted during the same calendar year of application.
- 5.3 Chemical dust suppressants shall not be applied within 100 feet of the surface receiving waters identified on page 1 of this permit. If these materials are applied within 100 feet of ditches that conduct surface flow to the surface receiving waters identified on page 1 of this permit, particular care shall be taken to prevent leaching and runoff of the dust suppressants to the ditches.
- 5.4 Chemical dust suppressants shall not be applied within 200 feet of any private water supply well nor within 1000 feet of any public water supply well.

Chapter 5. Stormwater Management

5. Application of Chemical Dust Suppressants

- 5.5 Chemical dust suppressants shall be applied in a manner that does not result in ponding or surface runoff. Chemical dust suppressants shall not be applied to paved or other impervious surfaces.
- 5.6 The MPCA may require additional limits and conditions on the application of ligninsulfonates, including monitoring, based on the results of investigations performed on the potential environmental impact of pulp, paper and paperboard manufacturing products and wastes.

Chapter 6. Special Requirements

1. Compliance Schedule

- 1.1 For outfall SD030, the Permittee shall obtain discharge authorization or abandon discharge location by December 31, 2001.
- 1.2 In order to achieve compliance at outfall SD030, the Permittee may achieve compliance with the applicable limits and requirements for the discharge from Pit 5S, eliminate the discharge from Pit 5S to waters of the state, and/or close the Pit 5S mining area as authorized by the MPCA.
- 1.3 As part of the plan to achieve compliance at outfall SD030, and as approved in writing by the MPCA, the Permittee shall, for temperature, design, construct and maintain a system to attain compliance with final effluent limits by August 31, 2001.
- 1.4 By January 1, 2003, the Permittee shall submit a complete report, approvable by the MPCA, that addresses:
 - a. The trends in concentration of specific conductance at outfall SD026;
 - b. The mitigation alternatives, and their associated costs, to achieve compliance with the effluent limits for specific conductance at outfall SD026.

This report may include, at least in part, a complete application for a variance.

- 1.5 The MPCA, through this Compliance Schedule, acknowledges that the Permittee may not attain compliance with the specific conductance effluent limits at outfall SD026 at the time of permit issuance. If this limit is exceeded, this would not be a violation of this permit provided that the Permittee is meeting the requirements of this Compliance Schedule, nor would this be a violation of this permit before the January 1, 2003, due date of the Compliance Schedule report.

2. Special Requirements

- 2.1 Deposition of tailings at the facility for use as construction backfill, and in road construction and maintenance is hereby authorized, provided that:
 - a. The tailings deposited are limited to those generated at, and transported directly from, the Hoyt Lakes taconite processing facility.
 - b. The tailings are stored and placed within the facility area covered by this permit.
 - c. Erosion is controlled from the tailings construction and maintenance sites according to an MPCA-approved Stormwater Pollution Prevention Plan that specifically addresses these sites.
- 2.2 If the automatic water level monitoring at the Redwater Basin malfunctions or is unresponsive, the Permittee shall conduct in-person site inspections to the overflow structures at the Redwater Basin at least once every four hours. The Permittee shall maintain a record of the water level monitoring at the Redwater Basin.

Chapter 6. Special Requirements

2. Special Requirements

- 2.3 If the Redwater Basin discharges, the Permittee shall monitor the following parameters on a daily basis for the duration of the discharge: arsenic, bicarbonates, 5-day carbonaceous biochemical oxygen demand, boron, calcium, total cations, chloride, chemical oxygen demand, duration of discharge (in days per month, as discharge from one or more pipes, whether simultaneously or separately), fibers (ambiguous, amphibole, chrysotile, non-amphibole/non-chrysotile, total), flow (calendar month total of all pipes flowing), fluoride, hardness, dissolved iron, magnesium, manganese, mercury, diesel range organics, pH, potassium, salinity, sodium, total suspended solids, specific conductance, sulfate, turbidity.

The Permittee shall report the results of this monitoring with the Discharge Monitoring Reports submitted for the month in which the discharge occurs.

Chapter 7. Total Facility Requirements

1. General Requirements

Definitions

- 1.1 "Amphibole" means a group of inosilicate minerals, which include a double-chain of silicon-oxygen tetrahedra, with the general chemical formula $A_2 B_5 (Si, Al)_8 O_{22} (OH)_2$, where A is mainly Mg, Fe, Ca and Na, and B is mainly Mg, Fe and Al.
- 1.2 "Calendar Month Average" is calculated by adding all daily values measured during a calendar month and dividing by the number of daily values measured during that month. The "Calendar Month Average" is an upper limit.
- 1.3 "Calendar Month Maximum" is the highest value of single samples taken throughout the month. The "Calendar Month Maximum" is an upper limit.
- 1.4 "Calendar Month Minimum" is the lowest value of single samples taken throughout the month. The "Calendar Month Minimum" is a lower limit.
- 1.5 "Calendar Month Total" is calculated by adding all daily values measured during a calendar month. It is usually expressed in mass or volume units. The "Calendar Month Total" is an upper limit.
- 1.6 "Calendar Year To Date Total" is calculated by adding all amounts measured from the first month in the "effective period" to the end date of the reporting period. It is usually expressed in mass or volume units. The "Calendar Year To Date Total" is an upper limit for the entire year, but is reported monthly. When the limit is reached, further applications or discharges are prohibited.
- 1.7 "Calendar Year Total" is calculated by adding all values measured during a calendar year. It is usually expressed in mass or volume units. The "Calendar Year Total" is an upper limit.
- 1.8 "Chrysotile" means a hydrated magnesium phyllosilicate, with the chemical formula $Mg_3 Si_2 O_5 (OH)_4$, that consists of a continuous sheet of silicon-oxygen tetrahedra connected in sandwich fashion to a brucite (magnesium hydroxide) layer in which two of every three hydroxyl groups are replaced by apical oxygens of the silica tetrahedra.
- 1.9 "Fibers", for the purpose of this permit, means amphibole and chrysotile asbestos mineral particles greater than 10 micrometers in length with three-to-one or greater aspect ratios.
- 1.10 "Flow Composite" sample type is a combination of individual grab samples taken at periodic intervals over a defined time period. Either the time interval between each individual sample or the volume of each individual sample shall be proportional to the flow at the time of sampling or the total flow since the last individual sample.
- 1.11 "Grab" sample type is an individual sample collected from one location at one point in time.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.12 "Instantaneous Maximum" is the highest value recorded when continuous monitoring is used or when the reporting frequency is not specifically defined. The "Instantaneous Maximum" is an upper limit. The highest value recorded is reported.
- 1.13 "Instantaneous Minimum" is the lowest value recorded when continuous monitoring is used or when the reporting frequency is not specifically defined. The "Instantaneous Minimum" is a lower limit. The lowest value is reported.
- 1.14 "Single value" is a reported value from a single sample or measurement for which there is no limit.
- 1.15 "Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

General Requirements

- 1.16 Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.
- 1.17 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)
- 1.18 Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules, parts 7050.0100 to 7050.0220 and 7052.0010 to 7052.0110 (applicable to toxic pollutants in the Lake Superior Basin) and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)
- 1.19 Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)
- 1.20 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- 1.21 Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)
- 1.22 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp.3, item D)
- 1.23 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)
- 1.24 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3, item B)
- 1.25 Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
- 1.26 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.27 Inspection and Entry. When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)
- 1.28 Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Sampling

- 1.29 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))
- 1.30 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)
- 1.31 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through 4740.2120) (Minn. R. 4740.2010 and 4740.2050 through 2120)
- 1.32 The mercury sampling and analyses required by this permit shall be conducted using EPA Methods 1669 and 1631. If at the time of sampling the MDH has not certified a laboratory to conduct analysis by Method 1631, then the Permittee may postpone the mercury sampling and analysis up to 60 days after receiving notification that the MDH has certified a laboratory.

The other metals analyses required by this permit, except for iron, shall be conducted using low-level detection methods, for example atomic absorption (AA) furnace methods.

- 1.33 The volatile organics analyses required by this permit shall be conducted using Minnesota Department of Health (MDH) Method 465E or equivalent method.

The polynuclear aromatic hydrocarbon analyses required by this permit shall be conducted using EPA Method 610 with high performance liquid chromatography.

- 1.34 The amines analyses required by this permit shall be conducted using the Michigan Technological University "Bromophenol Blue Method for Detecting Trace Amines".
- 1.35 Fiber analyses and reporting to the MPCA shall include a mineralogical breakdown of the fibers found, including of the particular amphibole and chrysotile minerals, and their concentrations. Monitoring for fibers shall be performed according to USEPA Method 100.2, "Determination of Asbestos Structures over 10 Micrometers in Length in Drinking Water" (June 1994), by a laboratory certified for this analysis by a national accrediting organization acceptable to the MPCA.
- 1.36 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.37 Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. (Minn. R. 7001.0150, subp. 2, items B and C)
- 1.38 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information (Minn. R. 7001.0150, subp. 2, item C):
- a. The exact place, date, and time of the sample or measurement;
 - b. The date of analysis;
 - c. The name of the person who performed the sample collection, measurement, analysis, or calculation; and
 - d. The analytical techniques, procedures and methods used; and
 - e. The results of the analysis.
- 1.39 Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified. (Minn. R. 7001.1090, subp. 1, item D; Minn. R. 7001.0150, subp. 2, item B)

Required forms may include:

Supplemental Report Form (Supplemental)

Individual values for each sample and measurement must be recorded on the Supplemental which, if required, will be provided by the MPCA. Supplementals shall be submitted with the appropriate DMRs. You may design and use your own Supplemental; however it must be approved by the MPCA. Note: Required Summary information MUST also be recorded on the DMR. Summary information that is submitted ONLY on the Supplemental does not comply with the reporting requirements.

- 1.40 The Permittee shall include the following information in the DMR for outfalls SD010, SD011, SD012 and SD030: the active mining areas during the sampling period for that outfall; the active pumping stations during this sampling period and for the three days prior to it; and a brief discussion of which outfalls might be the most impacted at the time of the sampling by the activities at the facility.
- 1.41 Individual values for each sample and measurement for stations SW002, SW006 and SW007 shall be reported on the Supplemental Report Form provided by the MPCA and submitted with the Discharge Monitoring Report.

Chapter 7. Total Facility Requirements

1. General Requirements

1.42 Submitting Reports. DMRs and Supplementals shall be submitted to:

MPCA

Attn: Discharge Monitoring Reports

520 Lafayette Road North

St. Paul, Minnesota 55155-4194.

DMRs and Supplementals shall be postmarked by the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period. (Minn. R. 7001.0150, subps. 2.B and 3.H)

Other reports required by this permit shall be postmarked by the date specified in the permit to:

MPCA

Attn: WQ Submittals Center

520 Lafayette Road North

St. Paul, Minnesota 55155-4194

- 1.43 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150 subp. 3, item G)
- 1.44 Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)
- 1.45 Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

- a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.
- b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection.
- c. Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. (Minn. R. 7001.0150, subp. 2, item B)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.46 Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)
- 1.47 Confidential Information. Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

- 1.48 Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)
- 1.49 Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp. 3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)
- 1.50 Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))
- 1.51 Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. Violations that are determined to pose a threat to human health or a drinking water supply, or represent a significant risk to the environment shall be immediately reported to the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area). In addition, you may also contact the MPCA during business hours. Otherwise the violations and the results of any additional sampling shall be recorded on the next appropriate DMR or report.
- 1.52 Unauthorized Releases of Wastewater Prohibited. Except for conditions specifically described in Minn. R. 7001.1090, subp. 1, items J and K, all unauthorized bypasses, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)

Chapter 7. Total Facility Requirements

1. General Requirements

1.53 Discovery of a release. Upon discovery of a release, the Permittee shall:

- a. Take all reasonable steps to immediately end the release.
- b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area) immediately upon discovery of the release. In addition, you may also contact the MPCA during business hours at 1(800) 657-3864.
- c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.
- d. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.
- e. Submit the sampling results as directed by the MPCA. At a minimum, the results shall be submitted to the MPCA with the next DMR.

1.54 Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:

- a. The specific cause of the upset;
- b. That the upset was unintentional;
- c. That the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;
- d. That at the time of the upset the facility was being properly operated;
- e. That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and
- f. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

Chapter 7. Total Facility Requirements

1. General Requirements

Operation and Maintenance

- 1.55 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F.
- 1.56 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)
- 1.57 Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)
- 1.58 Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)
- 1.59 Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

Changes to the Facility or Permit

- 1.60 Permit Modifications. No person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the Agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to the facility or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

- 1.61 Construction. No construction shall begin until the Permittee receives written approval of plans and specifications from the MPCA (Minn. Stat. Sec. 115.03(f)).

Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.

If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented.

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.62 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M)
- 1.63 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use.

This written request shall include at least the following information for the proposed additive:

- a. The process for which the additive will be used;
- b. Material Safety Data Sheet (MSDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive;
- c. A complete product use and instruction label;
- d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and
- e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use.

Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require that additional information be submitted for consideration. Also, this permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements. (Minn. R. 7001.0170)

- 1.64 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.
- 1.65 TMDL Impacts. Facilities that discharge to an impaired surface water, or to a watershed or drainage basin that contains impaired waters, may be required, at some future date, to comply with additional permits, or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A)) and 40 CFR 122.44.1.2.i, based on the conclusions of any applicable US EPA approved Total Maximum Daily Load (TMDL) studies, their associated implementation plans or additional sampling or monitoring.
- 1.66 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R., 7001.0150, subp. 3, item N)

Chapter 7. Total Facility Requirements

1. General Requirements

- 1.67 Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.

Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. (Minn. Stat. Sec. 116.07, subd. 4)

- 1.68 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

- a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;
 - b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;
 - c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.
- 1.69 Permit Reissuance - Sampling. The Permittee shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted. The application shall identify the sampling date(s).

Chapter 7. Total Facility Requirements

1. General Requirements

1.70 Permit Reissuance - Analytical Data. The permit application shall include data for at least the following parameters at each of the individual stations SD008 through SD013, SD026, SD030 and SD033:

- a. biochemical oxygen demand, chemical oxygen demand, total organic carbon, diesel range organics, gasoline range organics, pyrene, fecal coliform, ammonia, temperature;
- b. fibers, color, nitrate-nitrite (as nitrogen), total organic nitrogen, total phosphorus, bromide, chloride, fluoride, sulfate, sulfide (as sulfur), surfactants, alkalinity, total dissolved solids, total suspended solids, turbidity;
- c. aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, tin, titanium, vanadium, zinc (all in total form) using atomic absorption (AA) furnace methods according to 40 CFR Part 136.3;
- d. total mercury using EPA Methods 1669 and 1631;
- e. gross alpha particles, radium-226, radium-228, radon-222, uranium;
- f. PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260; and
- g. a scan of pollutants using EPA Methods 624 and 625 in 40 CFR Part 136. The Permittee shall identify, in addition to those pollutants noted in Methods 624 and 625 (Appendix D, Table II), the concentrations of at least ten of the most abundant constituents of the acid and base/neutral organic fractions shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) within ten percent of the nearest internal standard. Identification shall be through the use of EPA/NIH computerized library of mass spectra, with visual confirmation and potential quantification.

1.71 Permit Reissuance - Data for Non-discharging Outfalls. If a particular pit dewatering outfall is not discharging at the time of permit reissuance sampling, the Permittee may substitute sampling from an outfall that directly dewateres the same portion of the pit, or sampling the pit waters directly. If a Permittee substitutes such sampling, the permit application shall include an explanation for each particular substituted outfall.